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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.       |
|---|-------------|----------------------|---------------------------------|------------------------|
| 10/803,963  | 03/19/2004  | Takuya Yano          | 12065-0010                      | 6490                   |
| 22902   | 7590        | 08/31/2007           |                                 |                        |
| CLARK & BRODY<br>1090 VERMONT AVENUE, NW<br>SUITE 250<br>WASHINGTON, DC 20005 |             |                      | EXAMINER<br>WARTALOWICZ, PAUL A |                        |
|   |             |                      | ART UNIT<br>1754                | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>08/31/2007         | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/803,963

Applicant(s)

YANO ET AL.

Examiner

Paul A. Wartalowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-6,9-11 and 13-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-6,9-11 and 13-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Withdrawn Rejections***

The Obviousness-type Double Patenting rejections of record have been withdrawn.

### ***Response to Arguments***

Applicant's arguments filed 6/21/07 have been fully considered but they are not persuasive.

Applicant argues that in Golden, the noble metal is mixed into solution followed by evaporation to dryness to form the precursor and that the noble metal is introduced with the other precursor-forming materials, it is merely one of many components that are treated to form the precursor; the precursor of claim 2 is not noble metal-containing, and the noble metal is impregnated into the precursor using the noble-metal-containing solvent.

However, the precursor of claim 2 does appear to "contain" noble metals because the precursor is impregnated with noble metals. Because claim 2 indicates heat-treating the precursor to produce a perovskite complex and that the amorphous precipitate (precursor) is impregnated with noble metals, it follows that the precursor that is heat-treated to form the perovskite complex "contains" (is impregnated with) noble metals.

Applicant argues that the mixing state of the invention is conducted under such specified conditions that the amorphous substance in the powdery state is slurried in a solvent containing the noble metal ions for the impregnation. In

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Golden, there is no mixing stage involving the foam precursor and another element such as a noble metal.

However, Golden teaches that another element M can be added to the precipitate and powdered or sintered together with the precipitate to form a powder of single phase perovskite-type metal oxide materials having multiple M elements (col. 6, lines 30-37).

Additionally, it does not appear that adding the additional element M leads to making the catalyst active because the disclosure indicates that a single phase perovskite-type metal oxide material having multiple M elements.

Applicant argues that the amended claims require that the precipitate is formed at a pH of 6 or higher and that Golden does not teach this limitation.

However, claim 2 does not include positive process limitations in the forming of the precursor clearly pointing out distinct process steps. The claim language "the amorphous substance is a precipitated substance **obtained by** precipitation from an aqueous solution containing R ions and T ions using a precipitant under pH of 6 or higher," (emphasis added) indicates product by process limitations regarding the formation of the precursor. If applicant positively recites the process limitations of formation of the precursor, said limitations will be considered as process limitations and not product by process limitations.

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Applicant argues that there is no basis to conclude that the precursor of Golden is amorphous.

While, the process of making the precursor may be different in Golden than in the claimed invention, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*. 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

Additionally, because Golden teaches that different elements in the form of salts may be added to the precipitate and sintered together to form a single phase perovskite metal oxide material (col. 6, lines 30-37), it appears that the structure of the precursor is amorphous as to incorporate metals into the crystalline structure.

Applicant argues that Ishii does not remedy the failings in the rejection when citing Golden, Toshima, and Ward.

However, Ishii is not relied upon for those teachings. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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Applicant argues that Golden does not teach the manner in which the noble metal is impregnated so even if Golden were combined with Suga, the invention of claim 2 is still not taught.

However, Golden teaches that another element M can be added to the precipitate and powdered or sintered together with the precipitate to form a powder of single phase perovskite-type metal oxide materials having multiple M elements (col. 6, lines 30-37)

Additionally, Suga teaches impregnating a carrier with noble metal ions wherein noble metal salts are dissolved in a solution and then impregnated by method of drying through evaporation (col. 5, lines 28-48).

It appears as though the combination of Suga in view of Golden provides motivation for supplying the noble metal to the precipitate of Suga because Golden teaches that to do so will incorporate the noble metal in the single phase perovskite metal oxide material.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art;
2. Ascertaining the differences between the prior art and the claims at issue;
3. Resolving the level of ordinary skill in the pertinent art;
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 5, 6, 9, 15, 16, and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Golden (U.S. 5977017) in view of any one of Courty et al. (U.S. 4596782) and Ward et al. (U.S. 6827917).

Golden teaches a method for making a perovskite (col. 1, lines 10-18) comprising salts of noble metals, rare earth metals, and transition metals mixed to form a precursor material (Throughout document, particularly col. 6, lines 1-30) that is dried and calcining to form a perovskite (Throughout document, particularly col. 6, lines 5-10). Calcining is typically performed at a temperature greater than 400°C (Throughout document, particularly col. 6, lines 25-30).

As to the limitation that the amorphous substance is a precipitation product is obtained by the claimed steps, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product).

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When the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*. 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

As the limitations wherein the noble metal element-containing perovskite complex oxide exhibits certain properties, the prior art of record teaches a substantially similar process of making to that of the claimed invention such that the properties of the product made by said process of the prior art of record are substantially similar to that of the claimed invention.

If the claimed limitations of forming a precipitate are required, Courty et al. teach a process for producing a catalyst (col. 1) wherein a precursor of a mixture oxides is prepared by contacting a solution of soluble metal salts in a concentration of 0.2-0.6 gram-atoms per liter with an alkali at a pH of about 6.3-7.3 and at a temperature of about 20-80°C so as to form an amorphous homogenous precipitate (col. 15-16).

Ward et al. teaches adding ammonium carbonate to a mixture of elements in order to form a precipitate. The precipitate is then heated to produce a perovskite. (Throughout document, particularly col. 2, 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide forming a precipitate comprising mixing an alkaline aqueous solution with an aqueous solution of an element in Golden in order to form a precipitate that is an amorphous precursor for a perovskite as taught by Courty et al. or Ward et al.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 5, 6, 9, 15, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga et al. (U.S. 6395675) in view of Golden (U.S. 7014825), Ward et al. (U.S. 6827917) and Courty et al. (U.S. 4596782).

Suga et al. teach a process for making a catalyst of a mixed oxide containing a noble metal element (perovskite complex oxide, col. 1, line 54-col. 2, line 5) wherein an aqueous slurry comprising powder comprising a mixed oxide of a transition element and a rare earth element (precursor, col. 5, lines 10-15, 48-52) and a powder comprising a noble element (the first powder comprises a noble metal element, col. 5, lines 48-51; col. 1, lines 55-58) is mixed, wherein the amorphous substance is a precipitation product produced by reacting an

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aqueous solution of salts of the rare earth metal and the transition metal and a precipitant (ammonium hydroxide is the precipitant, col. 5, lines 15-22), and then heating the aqueous slurry to a temperature of 400°-900°C (some amount of drying is inherently taught by the step of heating at a temperature, col. 5, lines 52-55). Suga fails to teach that the precursor (before addition of noble element) is amorphous.

However, Golden teaches a method for making perovskite catalysts comprising salts of noble metals, rare earth metals, and transition metals mixed to form a precursor material (Throughout document, particularly col. 7, lines 29-43).

Therefore, it would have been obvious to one of ordinary skill in the art to mix salts of noble metals, rare earth metals, and transition metals to form a precursor material (Throughout document, particularly col. 7, lines 29-43) in order to make a perovskite having a noble element incorporated therein (Throughout document, particularly col. 3, lines 30-45).

As to the limitation that the amorphous substance is a precipitation product is obtained by the claimed steps, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*. 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

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As the limitations wherein the noble metal element-containing perovskite complex oxide exhibits certain properties, the prior art of record teaches a substantially similar process of making to that of the claimed invention such that the properties of the product made by said process of the prior art of record are substantially similar to that of the claimed invention.

Suga et al. teach a process for making a catalyst of a mixed oxide containing a noble metal element as described above in claim 1. Suga et al. does not explicitly teach wherein a precursor substance is an amorphous substance and that the noble element is incorporated in the amorphous substance.

As to the limitation that the amorphous substance is a precipitation product obtained by the claimed steps, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*. 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

As the limitations wherein the noble metal element-containing perovskite complex oxide exhibits certain properties, the prior art of record teaches a substantially similar process of making to that of the claimed invention such that the properties of the product made by said process of the prior art of record are substantially similar to that of the claimed invention.

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As to the limitation of the slurry is adjusted to a pH of 6 or higher in co-presenting nitrate ions and ammonium ions thereof, Suga et al. teach that the nitrates of the rare earth element and transition element are dissolved into water and ammonium is added to form a precipitate necessitating that ammonium and nitrate ions are co-present in the slurry. The addition of the ammonium to the slurry would raise the pH such that the pH of 6 or higher is inherently taught. If the pH is not inherently taught, it would be obvious based on the pH would be very close to the claimed range. The prior art range is so close that one skilled in the art would have expected it to have the same properties. *Titanium Metals Corp. v. Banner*, 227 USPQ 773.

As to the limitation of the mole ratio of the total amount of nitrate ions and ammonium ions to the total amount of rare earth element and transition metal element in the amorphous substance is greater than 0.6, Suga et al. teach that the nitrates of a rare earth element and a transition element are dissolved into water and ammonium is added to form a precipitate necessitating that ammonium and nitrate ions are co-present in the slurry such that an optimum amount of nitrate and ammonium ions would be present in the slurry.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of nitrate and ammonium ions that would be present in the slurry, since it has been held that discovering an optimum value or a result effective variable involved only routine skill in the art. *In re Boesch*, 617 F.2<sup>nd</sup> 272, 205 USPQ 215 (CCPA 1980). The artisan would have been motivated to optimize the amount of nitrate and ammonium ions that

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would be present in the slurry by the reasoned explanation that the nitrates of a rare earth element and a transition element are dissolved into water and ammonium is added to form a precipitate necessitating that ammonium and nitrate ions are co-present in the slurry such that an optimum amount of nitrate and ammonium ions would be present in the slurry.

If the claimed limitations of forming a precipitate are required, Courty et al. teach a process for producing a catalyst (col. 1) wherein a precursor of a mixture oxides is prepared by contacting a solution of soluble metal salts in a concentration of 0.2-0.6 gram-atoms per liter with an alkali at a pH of about 6.3-7.3 and at a temperature of about 20-80°C so as to form an amorphous homogenous precipitate (col. 15-16).

Ward et al. teaches adding ammonium carbonate to a mixture of elements in order to form a precipitate. The precipitate is then heated to produce a perovskite. (Throughout document, particularly col. 2, 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide forming a precipitate comprising mixing an alkaline aqueous solution with an aqueous solution of an element in Golden in order to form an amorphous precipitate that is a precursor for a perovskite as taught by Courty et al. or Ward et al.

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Claims 3, 4, 10, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga et al. (U.S. 6395675) in view of Golden (U.S. 7014825); any one of Courty et al. (U.S. 4596782) and Ward et al. (U.S. 6827917); and Ishii et al. (U.S. 5503815).

Suga et al. teach a process for making a catalyst of a mixed oxide containing a noble metal element as described above in claim 1. Suga et al. fail to teach the slurry is adjusted to a pH of 6 or higher in co-presenting nitrate ions and ammonium ions therein.

Ishii et al., however, teach a process for making a lanthanum manganite powder (lanthanum manganite is a perovskite, col. 1, lines 9-12, col. 2, line 65-col. 3, line 4) wherein salts of lanthanum and manganese are dissolved in nitric acid at room temperature (col. 3, lines 41-46; col. 4, lines 48-52) wherein ammonia is added for the purpose of adjusting the solution to a pH of 7.2 (col. 4, lines 50-55) for a chemically similar process of making a perovskite.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide wherein salts of lanthanum and manganese are dissolved in nitric acid at room temperature (col. 3, lines 41-46; col. 4, lines 48-52) wherein ammonia is added in Suga et al. in order to adjust the solution to a pH of 7.2 (col. 4, lines 50-55) as taught by Ishii et al. for a chemically similar process of making a perovskite.

This combined teaching meets the limitation of co-presenting nitrate and ammonium ions in the slurry.

As to the limitation of the mole ratio of the total amount of nitrate ions and ammonium ions to the total amount of rare earth element and transition metal element in the amorphous substance is greater than 0.6, it would be obvious based on the reasoned explanation that enough nitric acid would be used to dissolve the lanthanide and manganese salts and enough ammonia would be added in order to adjust the solution to a pH of above 6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of nitrate and ammonium ions present in the slurry, since it has been held that discovering an optimum value or a result effective variable involved only routine skill in the art. In re Boesch, 617 F.2<sup>nd</sup> 272, 205 USPQ 215 (CCPA 1980). The artisan would have been motivated to optimize the amount of nitrate and ammonium ions present in the slurry by the reasoned explanation that an optimum amount of nitrate and ammonium ions present in the slurry are necessary to dissolve salts of lanthanum and manganese (nitric acid disassociates into nitrate ions in the slurry) and to adjust the pH of the solution (ammonia disassociates into ammonium ions in the slurry), respectively.

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Claims 3, 4, 10, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golden (U.S. 7014825) in view of any one of Courty et al. (U.S. 4596782) and Ward et al. (U.S. 6827917); and Ishii et al. (U.S. 5503815).

Golden teach a process for making a catalyst of a mixed oxide containing a noble metal element as described above in claim 1.

Golden fail to teach the slurry is adjusted to a pH of 6 or higher in co-presenting nitrate ions and ammonium ions therein.

Ishii et al., however, teach a process for making a lanthanum manganite powder (lanthanum manganite is a perovskite, col. 1, lines 9-12, col. 2, line 65-col. 3, line 4) wherein salts of lanthanum and manganese are dissolved in nitric acid at room temperature (col. 3, lines 41-46; col. 4, lines 48-52) wherein ammonia is added for the purpose of adjusting the solution to a pH of 7.2 (col. 4, lines 50-55) for a chemically similar process of making a perovskite.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide wherein salts of lanthanum and manganese are dissolved in nitric acid at room temperature (col. 3, lines 41-46; col. 4, lines 48-52) wherein ammonia is added in Suga et al. in order to adjust the solution to a pH of 7.2 (col. 4, lines 50-55) as taught by Ishii et al. for a chemically similar process of making a perovskite.

This combined teaching meets the limitation of co-presenting nitrate and ammonium ions in the slurry.



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As to the limitation of the mole ratio of the total amount of nitrate ions and ammonium ions to the total amount of rare earth element and transition metal element in the amorphous substance is greater than 0.6, it would be obvious based on the reasoned explanation that enough nitric acid would be used to dissolve the lanthanide and manganese salts and enough ammonia would be added in order to adjust the solution to a pH of above 6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of nitrate and ammonium ions present in the slurry, since it has been held that discovering an optimum value or a result effective variable involved only routine skill in the art. In re Boesch, 617 F.2<sup>nd</sup> 272, 205 USPQ 215 (CCPA 1980). The artisan would have been motivated to optimize the amount of nitrate and ammonium ions present in the slurry by the reasoned explanation that an optimum amount of nitrate and ammonium ions present in the slurry are necessary to dissolve salts of lanthanum and manganese (nitric acid disassociates into nitrate ions in the slurry) and to adjust the pH of the solution (ammonia disassociates into ammonium ions in the slurry), respectively.

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Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga et al. (U.S. 6395675) in view of Golden (U.S. 7014825), Ward et al. (U.S. 6827917) and Courty et al. (U.S. 4596782) and Nakamura et al. (U.S. 5089452).

Suga et al. teach a process for making a perovskite as taught above in claim 1.

Suga et al. fail to teach carbon dioxide used as a precipitant.

Nakamura et al. teach a process of making a catalyst precursor (col. 1) wherein the precursor is formed by contacting an aqueous metal solution with an alkali hydroxide and carbon dioxide (col. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide forming a precursor by contacting an aqueous metal solution with an alkali hydroxide and carbon dioxide (col. 2) in Suga et al. because both Suga et al. and Nakamura et al. teach using ammonia as a precipitant and that it is well known to use carbon dioxide with ammonia as a precipitant as taught by Nakamura et al.

Additionally, Nakamura et al. teach that concentration of the metal salts in the aqueous solution can be in a range of 0.2-3 moles/liter.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a concentration of metal salts in the aqueous solution in a range of 0.2-3 moles/liter in Suga et al. because it well known to provide for that concentration in an aqueous metal salt solution

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contacted with a basic precipitant to form a precursor as taught by Nakamura et al.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Wartalowicz whose telephone number is (571) 272-5957. The examiner can normally be reached on 8:30-6 M-Th and 8:30-5 on Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358.

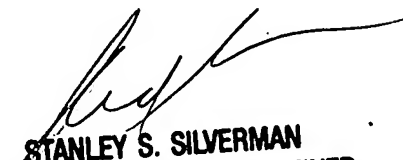
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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paul Wartalowicz  
August 21, 2007



**STANLEY S. SILVERMAN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**